

QST



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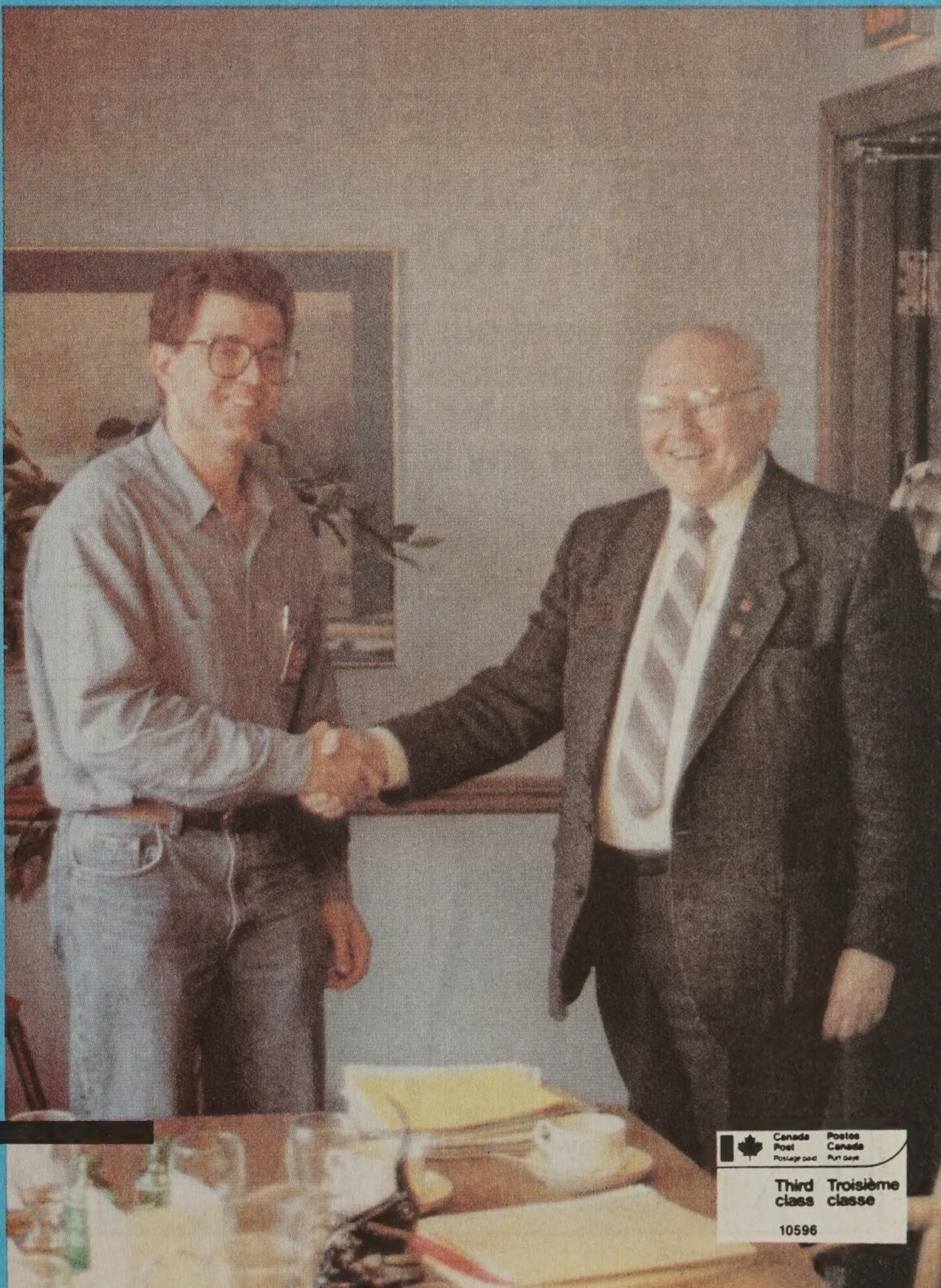
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**Tips for
Beginners**

**New DX
Column**

**Tracking
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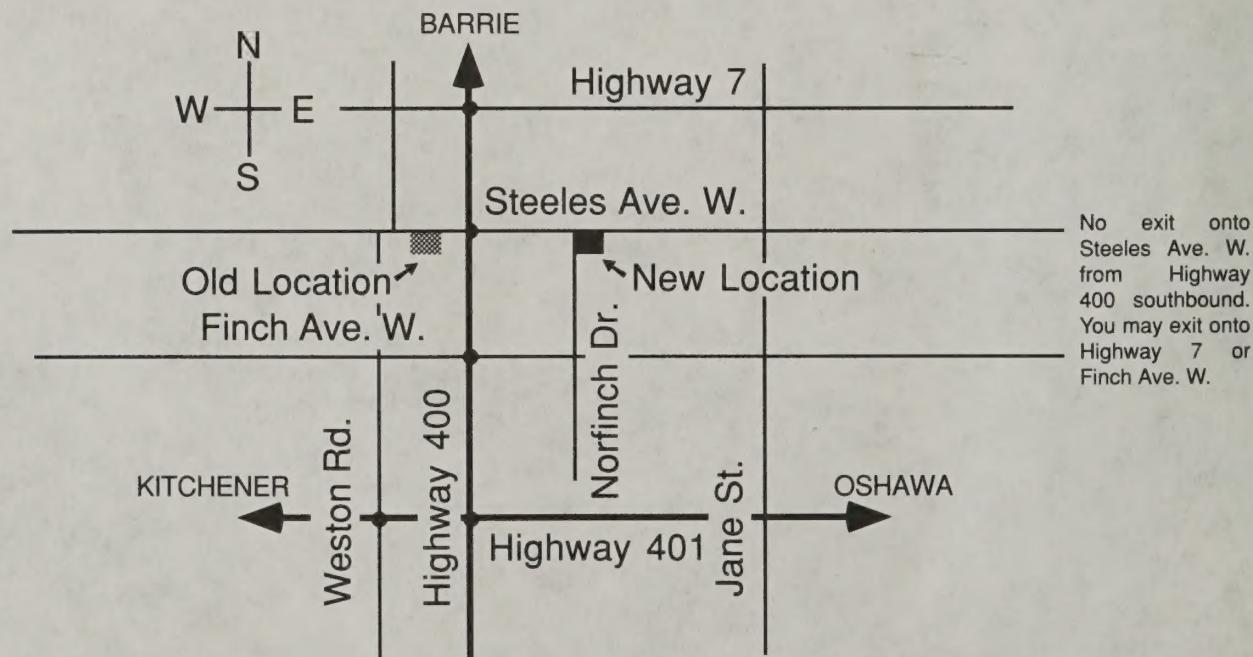


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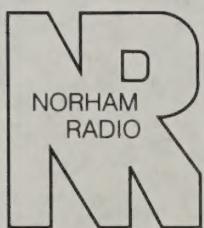
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QST Canada (ISSN 0840-1670) is published monthly by CRRL Publishing, Inc., to provide radio amateurs, others interested in radio communications and electronics, and the general public with information related to the science of Amateur Radio communications.

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Subscription rates: CRRL membership with QST Canada: \$15 + \$12 + \$0.84 GST = \$27.84 per year. CRRL membership with QST and QST Canada: \$15 + \$43 + \$3.01 GST = \$61.01 per year. Two- and three-year subscriptions are available at multiples of the yearly rates. Copyright © 1992 by CRRL Publishing, Inc.

ABOUT THE COVER

Presidents Dana Shtun, VE3DSS (CRRL), and J. Farrell "Hoppy" Hopwood, VE7RD (CARF), after signing the contract that will dissolve the two organizations and create Radio Amateurs of/du Canada. ■

It Seems to Us.../Il nous semble...

The Good Old Days...

As we look ahead to the inauguration of "Radio Amateurs of/du Canada" (RAC) in 1993, perhaps a personal glance back over the past years in Amateur Radio will show how far we have come.

It is just sixty years since this editor built his first shortwave receiver when at school in England, from plans in *Practical Wireless*. There were all sorts of interesting things to be heard. One could eavesdrop on ship-to-shore telephone conversations (no such thing as scrambling in those days) and pick up broadcasts from countries that were beginning to realize the potential for worldwide communication. The BBC's overseas program guide carried the biblical words "Nation Shall Speak Peace Unto Nation" on its masthead—which alas, had to be dropped as the propagandists of Nazi Germany made a cruel mockery of it.

Fascinating as foreign broadcasts were, it was the lure of the amateur bands that soon took hold. It was there that one could pick up nice slow Morse code, and teach oneself to read it. Listening on an inexpertly homebuilt set required great care in tuning. Hand-capacity would cause the frequency to shift as one grasped the tuning knob. And when listening to AM for weak signals, one had to adjust to within a hair's breadth of the point where the howl of oscillation would drown them out. Then what a feeling of

triumph when you conjured up the sound of a band of barefoot musicians from Haile Selassie's Imperial Guard in Ethiopia, or heard a signal from VR6AY, Andrew Young, a descendant of *Bounty* mutineers and the very first Amateur Radio operator on Pitcairn Island.

The first QSL cards received from British amateurs urged this schoolboy SWL to join the Radio Society of Great Britain (RSGB), and to take advantage of its services including the QSL bureau and its magazine, then called *The Bulletin*. I had already found what a fine brotherhood radio amateurs comprised—always ready to help the newcomer with advice and practical help. One old timer in the mountains of Tennessee was so tickled to receive a report on his CW message handling from a young SWL in England that he sent a three-page typewritten letter and photograph of himself at the rig: "No spring chicken, and nothing to excite the flappers' hearts."

The spirit of Amateur Radio is every bit as alive today, and "Radio Amateurs of/du Canada" will be in the best possible position to serve us all, in these high-tech days when amateurs with satellites, packet radio, AMTOR, ATV and digital radio—and scores of new commercial users of the radio spectrum—are vying for their share of this precious resource.

—David Adams, VE3HBF ■

The CRRL Field Day Trophy

This trophy was presented to CRRL in 1989 by Nortown Amateur Radio Club.

This is to remind all who participated in 1992 Field Day that the trophy will be awarded to the Canadian group that achieved the highest net score.

Remember to send your group's Field Day scores to ARRL, 225 Main Street, Newington, CT 06111. ■

Letters/Lettres

Conducted By David Adams, VE3HBF

All letters are considered carefully. Letters are edited for clarity and may be condensed in order to have more information and readers' views presented. The publishers of *QST Canada* assume no responsibility for statements made by correspondents.

MOVED TO JAPAN

My wife and I successfully completed our migration across the Pacific, and are now living for the time being in Japan. I have applied for a 7J3 call, and expect to be on the air by August with an IC-725 and Cushcraft R7 vertical looking for VE stations.

While in transit here we stopped in various countries to operate. I would appreciate your publicizing that those who require QSLs for my operation from the following calls this year should please send QSLs to my QSL manager JH3DPB at any *Callbook* address: FO0LM, ZK1XN, A35HA and 5W1KE. QSL via

the JARL bureau is also fine. I also obtained 3D2LM, ZL2MUR and VK3EVM licences, but was not very active from those locations. —*Murray Lycan, VE7HA/7J3*

REPUGNANT RACIST JOKES

I have been a licensed amateur for a very short time. Now in my mid-forties and employed in the television industry, I've enjoyed the world of radio and communication since my youth. My experience on 80 metres, both on CW and phone, has been a tremendous thrill. I eagerly await the opportunity to work DX on the upper bands when I receive my 12-wpm

endorsement.

On April 5 on about 3745 kHz I had my first taste of the dark side of this wonderful hobby. A group of hams had a round table going. A few jokes were exchanged, and then one gentleman, a senior ham by his voice, told one of the more repugnant racist jokes I've heard in some time. The rest of the group opened their mikes to laugh loudly. I understand that there are many who find jokes that insult and disparage other people on the basis of race to be acceptable. I do not, and I don't think the majority of hams do either. The spirit of Amateur Radio is international and advocates understanding and tolerance of all peoples. This was not a mildly offensive or "innocent" bit of humour with racial overtones. It was not a "Polish" or a "Newfie" joke. It was blatantly racist.

This type of behaviour by senior hams is totally unacceptable, and to do it over the air reveals a level of ignorance and bigotry that is particularly distressing. This great hobby is not a God-given right. It is a privilege granted by countries and their governments. It is threatened by many forces at work inside and outside the hobby. This is exactly the kind of ammunition that those who would challenge our access to the currently allocated frequencies would delight in: proof that we don't appreciate what we have.

I know this kind of behaviour is not widespread. Most of us appreciate the privileges we have been granted, and show more respect to other people than this group did. Here's to the spirit of brotherhood and sisterhood that is at the heart of Amateur Radio. —*Peter Lower, VE3URO*.

The Canadian Radio Relay League, Inc La Ligue Canadienne de la Radio Amateur, Inc



The Canadian Radio Relay League (CRRL) is a noncommercial association of radio amateurs organized for the promotion of Amateur Radio communications and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of radio amateurs in legislative and other matters, and for the maintenance of fraternalism and a high standard of conduct.

CRRL is incorporated under the Canada Corporations Act. Its affairs are governed by a seven-member Board of Directors elected every two years by the CRRL general membership. CRRL is noncommercial, and no one who could gain financially by the shaping of its affairs is eligible for membership on its Board.

CRRL is the Canadian member-society of the International Amateur Radio Union (IARU). "Of, by and for the Canadian Radio Amateur", CRRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement in amateur affairs.

A bona fide interest in Amateur Radio is the only essential requirement for membership. An Amateur Radio licence is not required, although full voting membership is granted only to licensed amateurs in Canada.

Membership inquiries and general correspondence should be directed to CRRL Headquarters, Box 56, Arva, ON N0M 1C0 Tel (519) 660-1200.

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*Voting member, CRRL Board of Directors

Silent Keys

Conducted By Ray Staines, VE3ZJ

It is with deep regret that we record the passing of these amateurs:

VE4EL, Ed Schellenberg, Brandon, MB
VE6FT, Frank Tyler, Whitecourt, AB
VE7ANF, Stuart Hislop, Victoria, BC
VE7CAM, Jack Arnold, Parksville, BC

Note: Silent Key reports sent to *QST Canada* must include name, address and call sign of the reporter. To avoid unfortunate errors, reports are confirmed only through acknowledgement from the family of the deceased. Thus, those who report a Silent key may not receive an acknowledgement from *QST Canada*.

For the Beginning Ham

Some tips on getting started...

By Don Kouri, VE3BZE
827 Wedgewood Court
Peterborough, ON K9J 7T8

Amateur Radio evolved as a result of experimentation by individuals interested in the wireless transmission of messages using electromagnetic waves in the radio spectrum at the turn of the century. Morse code, known as CW, was the only means of transmission at that time. Modulators were later developed and voice transmission using amplitude modulation provided an alternate form of communication. Today the choice of operating modes is much more diversified since we can communicate by CW, AM, FM, SSB, RTTY, AMTOR, packet, and via transponders on satellites. This article will provide the new amateur with a few tips on how to assess station requirements and make purchases that are cost effective.

Assessment of hobby time

Since ham radio is a hobby, you should establish the number of hours per week that will be devoted to it. Remember, there are other activities to take into account such as family time, household chores, and other recreational hobbies. Will you be operating mostly CW with some SSB? Will you be operating packet? What bands do you plan to use? Bands like 10 metres are on the down cycle just now. Are you interested in DX, contesting, ragchewing, VHF packet, or 2-metre FM? Obviously everything cannot fit into your plans.

Basic Low-Cost Amateur Station

The basic station would consist of an HF transceiver, a microphone, a straight-key, a low pass filter, an SWR bridge and a dipole-type antenna. An antenna tuner would be of value if operating over a wide range of frequencies. A good quality basic station can be assembled, used, for under \$250, and new, for about \$1500.

New versus used

Used equipment becomes available when someone purchases new gear. The newer equipment will, of course, have newer circuitry and more bells and whistles than the equipment being discarded. However, this does not necessarily mean the older equipment is obsolete. Can you manage without 99 memories, digital

readout, and a built-in keyer? Personally, I cannot think of 99 frequencies that are worth remembering and keeping track of in a log book. I navigate just fine without digital readout and prefer to use my own outboard keyer. The newer rigs do have some desirable features that the older ones do not have, features like a computer terminal port, the three WARC bands, FM or a built-in antenna tuner. Of course, if these additional features are not taken advantage of, they are of no benefit, given equipment depreciation, manufacturers' changes in technology and the availability of matching accessories. If two-metre FM and VHF packet are of primary interest, new equipment for VHF and used equipment for HF can keep you within budget.

Station accessories

External speaker, keyer, antenna tuner, and wattmeter are nice to have if funds are available. A grid-dip oscillator, noise bridge, SWR bridge, oscilloscope and a good quality VOM are also handy to have once you are established.

Antenna selection

Trap dipole antenna: This antenna is designed to operate on more than one band using a single feedline. The main disadvantage of a trap antenna is the losses in the traps and a bandwidth narrower than that of a single band half-wave antenna. In many cases, manufacturers' performance claims surpass the antenna's actual performance. A tuner may be required to provide an acceptable SWR on some frequencies. This type of antenna is advantageous where space is a problem and half-wave antennas are difficult to erect. A trap antenna will provide excellent performance for both local and DX contacts if mounted high and in the clear.

Trap quarter-wave vertical: This antenna is mounted vertically and operation is similar to that of a trap dipole in terms of SWR and bandwidth. A lower angle of radiation is possible than with a horizontal antenna if the vertical is installed under ideal circumstances. The lower angle of radiation is advantageous when working DX. However, obtaining lower-angle radiation is easier said than

done. When ground mounted, many radials and good soil conductivity are required to ensure that the antenna is operating efficiently. When installed as a ground plane above average soil, the antenna performs better than when ground mounted. For DXing without a beam, many amateurs use both horizontal and vertical antennas, alternating between them for different types of propagation.

Single-band half-wave antenna: This antenna offers maximum efficiency on a given band. It will outperform a trap antenna on same band.

Single-band quarter-wave vertical: Again, maximum efficiency on a given band. A single-band quarter-wave vertical will outperform a trap vertical on same band.

G5RV: This antenna offers good performance on 10 to 80 metres if mounted at 30 feet as a dipole. It requires an antenna tuner for all-band use.

Yagi beam: If finances permit, lots of DX can be worked with one. Brand names are reliable and will give years of service. Caution: bigger is not always better. The rating of the supporting structure and the rotor can be exceeded, and damage can be caused to them.

Quad: This antenna is lightweight and offers good performance. Select a model designed to withstand the ice storms of Canadian winters.

Conclusion

In conclusion, select your equipment based on intended amount of use, your objective and the family budget. ■

NEW DX COLUMN

As The World Turns is a new column for DXers and would-be DXers beginning in this issue. Its conductor, Ernie Poole, VE3NSZ, is a member of the DXCC Honour Roll. He lives in Bolton, Ontario. He welcomes input from anyone about DX activities and particularly, about DXpeditions. ■

Introduction

Recently I was asked by the editor of *QST Canada* if I would write a DX-oriented column on a regular basis. I accepted.

We have reached mid-point of Solar Cycle 22. Propagation on the HF bands has been good. With modest stations and antennas, many countries have been logged by Canadian hams. The political climate should also be recognized, whereby countries have been activated following long years of silence. To have 200–250 or so countries in the shoebox has been relatively easy.

DXpeditions to rare countries can cause huge "pileups" on the radio bands, resulting in much frustration for many operators. Tempers can flare, resulting in angry exchanges. "Jamming" has been severe at times, caused by the unstable amongst us. Operating techniques of many are poor, to say the least. This negative image must be repaired. Future articles will address this issue, as should clubs at the local level.

Having successfully worked a "new one", a QSL is now required for confirmation. Submission of the card is often necessary for the acquisition of awards and certificates. Our national QSL bureaus do a tremendous job in this respect, but it is often advisable to QSL direct, or to a QSL manager for that treasured new one. Both methods need special attention to ensure success. With postal rates constantly increasing, it is important to get it right the first time. We will come back to this subject in due course.

Several assumptions have been made about working DX. One is that most DXers are chasing awards and certificates of one kind or another. The ARRL and *CQ Magazine* DX programs are popular internationally. Also much sought after is IOTA (Islands on the Air), sponsored by the Radio Society of Great Britain (RSGB). Many other fine programs exist, and information on them will be forthcoming.

Another assumption is that the serious and committed DXer hopes some day to achieve Honour Roll status in the ARRL DXCC program.

Information on amateurs planning DXpeditions is very important for many. Because articles have to be submitted to the editor at least one month in advance, lead time is required so the information about them can be of value.

In the pursuit of awards and certificates, those not caught up with the "DX bug" often express dismay at a simple

exchange of signal reports, without a meaningful QSO. Perhaps if the view was taken that this is "radiosport" it would be more understandable, the object being to allow as many as possible to work the few. Time and propagation often are important factors.

I am a romantic! Traditions, folklore and history of radio is important to me. The electronic marvel that is my "rig" is a door to the world. Let us not forget those that pioneered in radio. Dayton, Ohio, may be "Mecca" for many amateurs, but so is Guelph, Ontario—the home of the Hammond Radio Museum. This is the "Spirit of Amateur Radio".

The operating lights are dim in the shack. At my feet is the "second operator", my cat Countess. With headphones on, and a comfortable operating position, I tune the bands. Many operators who are handing out the contacts are familiar. I listen awhile. I feel the kinship. I tune on. The pileup on ten metres is Kyoko, operating from one of the many Pacific islands she has visited. She is a fine operator! Those who received a QSL card from her, bound in ribbon, would likely agree that Kyoko is a lady with class. My body is in the shack, but the soul soars in flight to the cosmos. Such is the magic of radio.

I am also a realist. DXpeditions cost money. So does the family. I give what I can. QSLing, magazines, dues, et cetera, can be expensive and I rationalize. It keeps me off the street and out of trouble. I pay my way. Why should Jacky's 3B8CF/3B7 costs not be met? He gave me a "new one", and I am sure he does not need another VE3 card.

Within the hobby, there are many sub-hobbies and interests. Some hams are contesters, others favour nets, and still others enjoy traffic handling, public service and perhaps antenna construction. Modes such as RTTY, AMTOR, and packet, to mention a few, are very popular. The point is that a great deal of tolerance and goodwill is required in sharing our precious radio spectrum. The amateur spirit should prevail.

Within the framework of this introduction, it is my intention to provide building blocks of information which may be helpful. Old hat for some, new for others, including myself, as subjects are researched.

Canadians planning DX operations are invited to send in information as early as possible. Opinions, DX-oriented articles and similar material would be appreciated. Constructive criticism is welcome and would help to keep me humble!

Above all, the amateur spirit will be tended with love and care! 73 and good DX! —Ernest Poole, VE3NSZ ■

Calendar



Attention: Deadline for items is the 20th of the second month preceding month of publication. For example, information should reach *QST Canada* by January 20 to be included in a March issue.

Ancaster, ON: Fleamarket, 1992 September 12, at Marritt Hall, Ancaster Fairgrounds. Sponsored by Hamilton ARC. Opens at 0900, 0730 for vendors. Admission: \$4, children under 12 free. Wall tables: \$10, others: \$8, outdoor tailgaters: \$5. Free parking, food concession, two huge rooms of vendors, free ham testing. Talk-in: VE3NCF, 146.76 MHz (-). Tables may be requested via Keith Johnson, Hamilton AR BBS, Tel (416) 575-4745, modem or fax, or by packet to VE3DC @ VE3RD (Oakville). Requests cancelled if payment not received by September 4.

Brantford, ON: Fleamarket, 1992 August 15, at Woodman Park Community Centre, 491 Grey St. Sponsored by Brantford ARC. Opens at 0800, 0700 for vendors. Admission: \$4, children under 12 free. Tables: \$8. Talk-in on VE3TCR, 147.15 MHz (+). For more information, contact Eric Levison, VE3DSL, 37 Magnolia Dr, Paris, ON N3L 3M9, Tel (519) 442-2595.

Burlington, VT: Burlington Hamfest, 1992 August 22. Full R/V hook-ups available.

London, ON: Flea Market, 1992 September 27 at Pot O'Gold Bingo Palace, Hamilton and Gore Roads. Sponsored by London ARC. Opens at 0900, 0800 for vendors. Closes at 1400. Admission: \$5, children under 14 free. Tables: \$5. Large indoor sales area. Paved parking area. Commercial snack bar. Talk-in VE3LON, 147.06 MHz (+). Send reservations and payment to Jim Hartford, VE3NRX, London ARC, Box 82, Station B, London, ON N6A 4V3, Tel (519) 672-7911.

Vernon, BC: Sky High Hamfest, 1992 August 28–30, at Silver Star Mountain, 14 miles from Vernon. Sponsored by Okanagan Valley Hamfest Association. Restaurants, hotel and R/V accommodation. Outdoor recreational activities, swimming, hot tubs, hiking trails, summer chairlift, mountain bikes. All facilities have been reserved for the hamfest. For more information, contact Kevin, VE7EGD, Tel (604) 545-8340. ■

MOVING?

For uninterrupted delivery of *QST* and *QST Canada*, send your change of address notice to CRRL, Box 56, Arva, ON N0M 1C0, eight weeks before moving. Don't forget to give your callsign or the seven-digit number on your mailing label. —Ray Staines, VE3ZJ ■

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Mississauga Opposes Antenna Towers

Mississauga ARC is fighting a resolution passed by Mississauga City Council on January 27 that seeks to place severe restrictions on antenna structures within the city.

Recognizing federal authority in these matters, the Council recommends:

a) That the federal Minister of Communications be advised that the City of Mississauga is strongly opposed to licensing radiocommunications towers in residential areas in the City of Mississauga;

b) That if the federal Department of Communications continues to allow radio communications towers in residential areas despite strong opposition from residents of the City of Mississauga, the federal Department of Communications be advised that the City of Mississauga wishes to participate in the process of licensing radio transmission systems, as facilitated under the new Radiocommunications Act, and requests that the City of Mississauga be notified of all applications for significant antenna structures that affect lands within Mississauga and should be no higher than 30 feet.

Mississauga ARC strongly opposes the resolution. A letter to Mayor Hazel McCallion calls on the Council to "reconsider and rescind" the resolution. The letter claims that if this resolution were adopted by the federal Department of Communications, the work of amateurs within Mississauga would almost certainly cease to exist. The letter points out that through the Amateur Radio Emergency Service (ARES), local amateurs are prepared to provide communication services in any emergency. It adds that although Mississauga ARC did not exist during the 1979 train derailment, Amateur Radio operators worked with the Red Cross during that major emergency, and had provided assistance during several hurricanes in the Caribbean. The club runs a station at the Mississauga Hospital for the use of patients, and encourages local Scouts to participate in JOTA, the annual international Jamboree-on-the-Air.

Concluding this letter, Mississauga ARC President Ron Reyno, VE3RYN, invites Mayor McCallion to discuss the issue in detail, and attend one of the club meetings or look in on the club's Field Day operation.

The letter was dated March 24, 1992. No reply had been received by the end of May.

ST. ROCH VOYAGE ANNIVERSARY

VE8RCMP is the special call allocated to Larry Whittaker, VE8AW, of Copper-

mine, Northwest Territories, to commemorate the 50th anniversary of the voyage of the RCMP vessel St. Roch, the first vessel to travel through the Northwest Passage from west to east. The voyage, under Captain Henry Larsen, took two years. VE8RCMP will be active on July 1-August 31, 1992.

NEW CALL DIRECTORIES

Ed Charlesworth, VE3ZF, compiler and editor of the many editions of the *Chicken Junction Directory* of Ontario amateurs, has branched out with plans for similar call directories eventually covering Canada from coast to coast. The first of this series which will all go under the title *The Different Call Book*, is the Maritimes edition. For anyone not familiar with the *Chicken Junction Directory* format, the unique feature is that the listings are grouped under cities, towns, villages, and not simply by call letters. Each volume also has a Yellow Pages section, where calls are listed alphabetically, indicating the page number where the full listing may be found.

The Maritimes edition is divided into seven sections: one section for VE0, one section for each of the four VE1 provinces, VO1 and VO2, and a special section Prince Edward Island VY2 calls. Each section is tabbed. The listings are in large, clear type. The date of the edition is shown on the cover, as well as the number of calls listed in each section: Nova Scotia—1392, New Brunswick—99, PEI—87 VE1 and 162 VY2, Newfoundland—640, Labrador—47, and VE0 maritime mobile—201.

Ed cautions that this issue of his directory was compiled from many sources. "As with any endeavour of this type and magnitude, errors and/or omissions will occur." A form is enclosed on which readers can point out errors or omissions.

Other regional directories are planned. Work has started on the Prairie Edition, due out in a few months. It should be followed by a West Coast edition, and eventually, a Quebec edition. Prices are as follows: *Ontario Chicken Junction Directory*—\$17.95 at fleamarkets across southern Ontario. Mail orders add \$4.00. *The Different Call Book: Maritimes Edition*—\$14.75 plus \$4.00 to \$5.00 depending on destination. [Editor's note: Information on CRRL and QST Canada does require updating.]

CY7J MOBILE ON SIX METRES

Kazu, VE7RJU, has been authorized to use the special call CY7J for a six-metre

mobile operation from Vancouver to Banff, Jasper, Calgary and back to Vancouver, starting on August 30. Look for Kaza on 50.110 MHz. When six metres is not open, Kazu will operate HF on 28.780, 21.280 or 14.280 MHz, and VHF on the IPARN linked repeater system.

THE HERITAGE AWARD

The Heritage ARC of Cobourg—Port Hope announces The Heritage Award of Ontario. The official Heritage Highway runs from Niagara Falls, Ontario to Gaspé, Quebec. This award is for contacts made along the Toronto to Quebec corridor of the old Highway 2—a road between Toronto and Montreal running along the north shore of Lake Ontario and the Saint Lawrence River, much travelled before the building of the Macdonald-Cartier Freeway. Purpose of the new award is to stimulate VE3 on-the-air activity. Heritage ARC Awards Chairman Eric Olsen, VE3GGO, says "Although I am a CW buff from RCAF and World War 2,... I noticed that most of our members were two-metre devotees. I decided to join in the fun.... If most new amateurs are two-metre fans, let them in on Canadian awards. We invite everybody to participate in all modes." Experienced operators will be encouraged to get back on the air by calling familiar Ontario stations. Newer amateurs will experience the fun of operating province-wide, and not in a speed contest.

For this award, then, you may count contacts on all bands including two metres. Cost of the award is \$4 for printing and mailing.

OPERATION AMIGO

The Radio Club of Peru has organized this 18-week event, running on July 1–November 25, 1992, as a friendly salute to the nations of the Americas. Each week is devoted to one country. Canada's turn is August 6–12. The idea is to contact two stations in each country in the appropriate week. Copies of log entries should be sent to Radio Club Peruano, Box 538, Lima 100, Peru. Those qualifying will receive a special award to commemorate "Operation Amigo". During each week the Radio Club Peruano premises will be available to one country's embassy for cultural, technical, or folklore displays. The club station, OA4O, will operate 2100–2300 UTC daily, for general contacts and publicizing activities. Let's support Radio Club Peruano and see lots of Canadian participation in this event.

Band Planning: Meeting Spectrum Needs of All Amateurs

Over the years, yours truly has been involved in band planning with the ARRL as CRRL's representative on the ARRL VHF/UHF Advisory Committee (VUAC). In addition, a number of years ago, we in CRRL created a VUAC to do the job for Canadian interests. The CRRL VUAC's mandate is similar to that of ARRL's, but with a slightly broader viewpoint.

This mandate is to monitor the ongoing activities of radio amateurs above 50 MHz and offer a means of creating band plans that will allow individual Canadian radio amateurs access to each and every VHF-UHF-SHF band to enjoy each particular mode of operating without disturbing other radio amateurs using the band. This means segregating SSB, CW, FM simplex, ATV simplex, ATV repeaters, FM-voice repeaters and packet operations in a harmonious manner. The results are not always perfect, but the process does do the job.

We try to balance the needs of amateurs collectively with the needs of those with certain self interests. In some cases, over the years, these self interests have manifested themselves in attacks on the band planning process. In many cases, attacks were from individuals who were neither members of CRRL or in some cases had hidden agendas ranging as far as "commercial interests". This is why we have reaffirmed our conviction to uphold the rights of all radio amateurs to share their bands with each other, to move to less crowded bands if one band clogs up, and to constantly be on the lookout for "Trojan horses" seeking to subvert our amateur frequencies. This philosophy has worked and will continue to work, believe me. In addition, CRRL's VUAC can effectively meet challenges from "federal sources" who may care little about our activities or our specific "needs" for noise-free spectrum. I hope the more perceptive readers will catch my drift.

Getting back to band planning, another aspect of band planning is enforcement. As everyone knows, or should know, our band plans exist by "gentleman's agreement" (should that be "gentleperson's agreement"?), and not by force of law. That is the way that the Amateur Service has prospered over the last 80 years, and we do hope this continues. Failing that, of course we would have to turn to our government's regulatory bodies to enforce some sort of plan to segregate certain modes from others. This is currently the case in the United States, on both six and two metres.

Remember, if you are a CRRL mem-

ber, your comments are always welcome regarding the band planning process. We hope that you will drop us your comments from time to time. In addition, with the creation of RAC in the near future, we anticipate that the band planning process will be strengthened further, particularly if talks toward RAC taking over the administration of the Canadian Amateur Service from DOC progress.

One example of a CRRL band plan is the 2-metre plan presented below for your reference.

GETTING ACTIVE ON VHF-UHF

We still keep hearing the same old tune being sung by many amateurs out there that there isn't any gear for 50, 220 or 903 MHz, so we're just going to stick to 144 and 430 MHz because of that. Many amateurs singing this song must work for the commercials and only know about 150 and 450 MHz, so they think they can just keep carrying things on over to the amateur side. Horrors! Look people, there is gear available that will allow you to operate on the other bands. It may not have a big name on it, and it may even require assembly! But the stuff is there! In addition, there is used gear by the score, and new gear coming out every day. There really is no excuse not to utilize our other bands. Just remember that we have 39 MHz of spectrum available for FM repeaters, packet, SSB and ATV, just waiting for you and your friends.

SMIRK MEMORIAL RIG DONATION PROGRAM

Ray Clark, K5ZMS, would like to remind six-metre DXers that even though you might become a "Silent Key" sometime down the road, it is possible to keep your spirit alive on six metres through the equipment donation plan. SMIRK (the Six-Metre International Radio Klub) recently shipped such gear to the Honduran ARC for use in getting Honduras QRV on six.

FROM THE 50-MHZ DX BULLETIN

The ARRL DXCC desk recently announced that applicants who send their cards directly to ARRL Headquarters no longer have to list data from their QSL cards on the back of the application form. The backlog is currently about four months for new applications. More than 50 six-metre certificates have already been issued to operators on every continent except Africa, where ZS8WB is now up to 88/83.

From Guam, KH2/JI1DMH is active

on six, on 50.115 MHz.

From Palau, the recent KC6RR operation worked 135 VKs plus 21 countries in all continents except North America. DX worked included Mongolia, China, Malawi and Greece.

Speaking of Mongolia, JT1CO's keyer is often reported by the VK gang on 50.104 MHz, but they report no JT coming on for QSOs. Looks like a bit of inexperience is the problem. With some help and encouragement there could be lots of activity from this rare one.

Juan, TG9AJR, is waiting for the arrival of a Swan 250 from the States. Look for future activity from here.

The XE gang has been very active of late working many ZLs and VKs. Emilio, XE3EB, has been active for less than a year and has already worked WAC, almost all 50 states and 32 countries. QSL info for XE3EB is Emilio Berny, Box 309, Merida, Yucatan 97000, Mexico.

On Easter Island, an official change has been made for the call sign structure. The suffix will always begin with a "Y". Thus, CEØDFL is now CEØYFL.

Some interesting news from South Sandwich, especially timed for summer in the Great White North. It seems that VP8SSI was a no-show on six and two metres because of the weather. They got the six-metre antenna assembled and then left it on the ground overnight. By the next day it was frozen solid to the ground and could not be pried free!

From St Helena Island, Chuck, ZD7CRC, a missionary from South Africa, is active on six metres with ten watts and five elements. He is inexperienced with DX and thus monitors SSB only on 50.110 MHz.

Interested in six metres? You may need to subscribe to the *50-MHz DX Bulletin*, available from Victor Frank, K6FV, Box 762, Menlo Park, CA 94026, to satisfy your craving for information.

SIX-METRE QSL MANAGER LIST

Drop a buck to Harry Schools at the address given above for the latest listing of 535 DX managers for six-metre operations.

BEACON NEWS

Look for WB9STR on 50.0715 MHz from EN61 in Bourbonnais, Illinois.

The PJ4B beacon has been cured of spurious emissions and is now QRV 24 hours-a-day on 50.015 MHz. It is FSK mode, running 21 watts to a triple stack of horizontally polarized omnidirectional antennas.

Harry Schools, KA3B, has just published his annual megalist of worldwide six-metre beacons. To obtain a copy, send US \$5.00 to Harry at 1606 South Newkirk Street, Philadelphia, PA 19145.

SIX-METRE POWER

Pat Bunn, N4LTA, is back in production of his 50-MHz, 100 watt amplifier. This amp was originally described in October 1989 *QST*. Printed circuit boards are available for US \$17 or US \$100 for "the kit". For more information, write to Pat Bunn, N4LTA, Route 11, Springlake Drive, Spartanburg, SC 29302.

SIX-METRE TRANSVERTER

The Tokyo High Power Labs HX-650 transverter may be available soon. Apparently the price will be in the \$400 range. The IF is 28–30 MHz with two crystal positions to permit coverage of the whole band. The receiver has two separate selectable front ends, one using a MGF1302 GaAsFET and the other using a "crunch-proof" pair of 2SK125s. On the transmit side, drive is selectable for either 0.1 or 1.0 volts RMS, and output power is selectable to either 10 or 50 watts with VSWR protection. This certainly sounds interesting, and "the price is right".

ACTIVITY REPORTS

50 MHz: Clarke, VE3WCB of Milton, Ontario, reports sporadic-E on May 12. While the E-skip was weak it was very long and interesting. Clarke reports the following contacts starting at 1519 UTC: N6CL/5 (EM15), K15UA (EM22), KB5XQ (DM93), K5AAD (EL29), W5FYZ (EM32), N7JJS/5 (EM32), AA6DD (DM13), N6CW (DM12), K6ODV (DM13), WA7HCE (DM44) and W6YLZ (DM04).

VE3GCE and VE3SIM are new to the band, and active from Southern Ontario. Out in St Jacobs, Ontario, Manfred, VE3ZIE, is active on six with a transverter of his own design. During the six-metre ARRL Spring Sprint, he worked VE1SLM (FN65), VE3FGU (FN04), VE5LY (DO70), N4ZFH (EL89) and numerous other DX with just six watts and a halo antenna. Manfred manufactures and distributes a line of six-metre products including his transverter with either a 28 or 144 MHz IF, and a 170-watt power amplifier. For details write to MAS Enterprises, 104 King Street South, St Jacobs, Ontario, N0B 2N0, Tel (519) 664 1273, Fax (519) 664 3082.

According to the *50-MHz DX Bulletin*, May 12 brought a phenomenal E opening, with a "Cape Cod beacon" being heard in Cyprus, plus OX and ZD8 being heard strongly in New England.

Back on this side of the border, Stu, VE2XX (FN25), writes that he caught some sporadic-E on May 24 into Alabama, Virginia, Kansas, Arizona, New Mex-

ico, Utah, Colorado, Iowa, California and Manitoba. Stu made about 70 contacts during the 1.5-hour opening.

Gord, VE3KKL, sends in a copy of his logs covering November 1991 to June 1992. Gord worked some juicy F-layer DX during the winter, including 9H5ET (JM75), LX1JX, OE5DGG (JN87), many Italians, Danes, Dutch, and Belgians. Gord's country total is 86 with 82 confirmed.

We have received some initial reports from the ARRL June VHF QSO Party. E-skip was certainly the order of the day for the contest period. Looking through the logs, we see a high level of six-metre activity from Canada into the US, the Caribbean and Mexico.

From the east, VE1MQ operated multioop from the top of Crabbe Mountain, at 1300 feet above sea level in FN66. Mike writes that he and Dave, VE1WL, drove up the mountain and set up in a "black

fly-infested area. Antennas were on a rotatable mast bolted to a car roof rack. They had a great time and worked some good DX including CO2KK (EL83), HH7PV (FK28), VP9HE (FM72), XE3EB (EL51), VP5/KA3B (FL31), VE3KRP (EN59), W3XO/5 (EM00), and W5SXD (EL20), using 80 watts and a three-element yagi. Their claimed score was 86 QSOs and 61 grid squares on six metres.

Out on the west coast, Kevin, VE7CYT (CN89), racked up 146 QSOs and 67 grid squares as a single-op single-band entry. His log included VE7IIA (CN89), VE7HCE/R (CN89 and CN99), VE7CA, W4IY(FM08), XE2/K6VV (DM11), K5UR (EM35), and piles of other W4, W5, W6 and W7 contacts.

From Ontario, VE3ONT's preliminary results on six read like the VE3ONT

VHF-UHF—continued on page 13

Canadian Radio Relay League Band Plan: 144–148 MHz

(Revised March 1992)

Status: Amateur Exclusive

MHz		Recommended Utilization
144–144.1		MOONBOUNCE AND TERRESTRIAL CW
144.1	C	CW CALLING FREQUENCY
144.1–144.2		CW/SSB WEAK-SIGNAL COMMUNICATIONS
144.2	S	SSB CALLING FREQUENCY
144.2–144.275		AM NARROWBAND MODES (ACSSB, SSB BW \leq 2.5 kHz)
144.275–144.3		PROPAGATION BEACONS
144.3–144.5	O	EXCLUSIVE OSCAR SATELLITE SUB BAND
144.5–144.6	R/T	FM REPEATER INPUTS PRIMARY, WITH LINEAR TRANSLATOR INPUTS SECONDARY
144.6–144.9	R	FM REPEATER INPUTS
144.9–145.1	P	PACKET (see Footnote 1)
145.1–145.2	R/T	FM REPEATER OUTPUTS PRIMARY, LINEAR TRANSLATOR OUTPUTS SECONDARY
145.2–145.5	R	FM REPEATER OUTPUTS
145.5–145.8	E	EXPERIMENTAL MODES (see Footnote 2)
145.8–146.0	O	EXCLUSIVE OSCAR SATELLITE SUB BAND
146.01–146.37	R	FM REPEATER INPUTS
146.4–146.58		FM SIMPLEX (see Footnote 3)
146.52	F	NATIONAL FM CALLING FREQUENCY
146.61–147.39	R	FM REPEATER OUTPUTS
147.42–147.57		FM SIMPLEX
147.6–147.99	R	FM REPEATER INPUTS

Footnotes:

(1) Digital (packet) operations on 20 KHz channelling 144.91 through 145.09 MHz. 10 channels.

(2) Operation in this subband is on a TEMPORARY basis for experimentation and development work. CRRL requests that amateurs keep frequencies such as 145.5, 145.525, 145.55 and 145.750 MHz clear for INTERNATIONAL space shuttle, SAREX and MIR FM-voice communications. CRRL urges amateurs to conduct experiments on other bands such as 50 or 220 MHz, in areas where 2-metre utilization is high.

(3) The frequencies 146.40, 146.43 and 146.46 MHz continue to be used as repeater inputs in some areas.

MFJ MULTIMODE

LETS YOU TRANSMIT AND RECEIVE FAX, WEFAX,
RTTY, ASCII AND CW.

This new MFJ-1214 Multimode Computer Interface lets you use your computer and radio to receive, display and transmit brilliant full color new photos and incredible WeFAX weather maps with all 16 gray levels.

You get easy to use menu driven software, cables, power supply, comprehensive manual and Jump-Start guide. Everything you need to get going.

The MFJ-1214PC works with VGA, EGA or Hercules IBM compatibles with 512K of RAM and 10MHz or faster speed.

\$199

YAESU FT2400H

Looking for a powerful mobile that has an easy to read Alphanumeric display and is good on intermod? Checkout the FT2400H by Yaesu! Lots of memories, 50 watts, and Very rugged. The FT2400 design was based on a commercial mobile and redesigned for the Amateur Radio



market. The FT2400H is by far one of the best selling 2 Meter mobile unit available today. It comes with a backlit touchtone microphone, power cord, and mounting bracket.

ANTENNAS!

Ten-Tec Mobiles antennas are the best kept secret around! The longest antenna is 79" high, and they mount on the standard 3/8" socket!

3110 10M Mobile Antenna	\$55
3115 15M Mobile Antenna	\$55
3120 20M Mobile Antenna	\$60
3130 30M Mobile Antenna	\$65
3140 40M Mobile Antenna	\$65
3175 75M Mobile Antenna	\$70
3180 80M Mobile Antenna	\$70

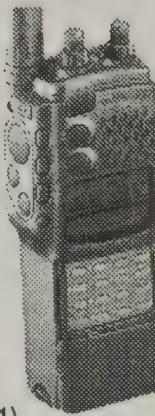
ACCESSORIES!

Penta 3-500Z Tubes	\$169
Coax Seal - Weather Proof outside Coax Connections .	\$7
Snap-on-Chokes for RFI problem...package of 3	\$14.95
Telephone RFI Line Filters-just plug in	\$25

COAX!

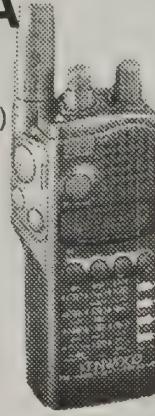
RG-213 Mil Spec 50 Ohm Coax 95% braid	\$0.85/ft
RG-8X Mini-8U 50 Ohm Coax 95% braid	\$0.45/ft
RG-58 small 50 Ohm Coax 95% braid	\$0.35/ft
RG-174 super small 50 Ohm Coax	\$0.45/ft

KENWOOD TH-78A DUAL BAND HANDHELD



- One of the nicest looking Handhelds we have seen!
- Dual Rx VHF-UHF,UHF-UHF,VHF-VHF
- Sends Alphanumeric messages to other TH78 & TH28
- Alphanumeric memory feature
- CTCSS Encode & Decode
- Receives Aircraft, VHF, and UHF
- Memory expandable to 250 (optional ME-1)
- DTSS Code squelch and paging

KENWOOD TH-28A 2M HANDHELD



- Dual band Receive (Aircraft, VHF & UHF)
- CTCSS Encode and Decode
- Expandable to 250 Memories (optional ME-1)
- Send and Receive 6 Character Alphanumeric messages
- Auto-dialler memories
- DTSS Squelch and Paging
- We stock all the accessories
- See the Periphex Add below for equivalent replacement batteries

DIAMOND

Diamond Antennas are so are for mobile use, and the Antenna gains are based as VHF/UHF. All Diamond Laren PO style mount.

SG-2000	Mobile 2M 5.2dBi
SG-7500	Dual Band 3.5dBi
SG-7900	Dual Band 5.0dBi
X-50	Dual Band 4.5dBi
X-200	Dual Band 8.3dBi
X-500A	Dual Band 8.3dBi
X-700HN	Heavy duty 9.0dBi

PERIPHEX RECHARGEABLE BATTERIES

More battery power for less weight. Please have a look at the Periphex Rechargeable cells, these Super Packs feature built-in charge protection!

Example:
ICOM BP-85 12Volts
Periphex BP-85S 12Volts

Kenwood PB-13 7.2V 7Ah
Periphex PB-13S 7.2V 7Ah

Yaesu FNB-14 7.2V 7Ah
Periphex FNB-14S 7.2V 7Ah

Periphex in stock:
ICOM
BP-7S 13.2V 1200mAh for IC-7000
BP-8S 9.6V 1200mAh for IC-7000
BP-83S 7.2V 750mAh 2SA
BP-84S 7.2V 1400mAh 2SA

Kenwood
PB-7S 7.2V 1400mAh for KX-1000
PB-8S 12V 800mAh for KX-1000
PB-13S 7.2V 1200mAh for KX-1000

Yaesu
FNB-14S 7.2V 1400mAh for FT-817
FNB-26S 7.2V 1400mAh for FT-817
FNB-27S 12V 600mah for FT-817

INTERMOD FILTERS \$99

All new wideband receivers and Handhelds experience some amount of interference from intermod. Reduce your problems with our Intermod filter from Texpro!

- 4MHz bandpass (144-148MHz)
- Can be turned on & off as desired
- Only requires 12VDC
- Installs in feedline to antenna
- No modifications required to your transceiver



JRC 135HP HF

JRC's new HF transceiver is a grade above the ultimate performance for DX communications comparable to that of professional service.

The general coverage front end offers variable dynamic range. Six interference rejection techniques including the newest "notch follow filter" ensure high quality QSO. The transmitter's heavy-duty design uses a low-distortion power heat sink to enable continuous full-power transmission.

The frequency synthesizer employs a one-chip direct digital synthesizer (DDS) IC, ensuring high C/N and high speed response. The JST-135HP is a sophisticated HF transceiver to meet your requirements for global DX communications.

SUPER SPECIAL JST135HP (GOLD KNOBS) AND MATCHING POWER SUPPLY \$249

ANTENNAS

the best made! SG series
series are base antennas.
Dipole) and are expressed
ile antennas mount on a

ain 63" tall	\$99
Db gain	\$99
Db gain	\$155
Db gain	\$139
0/8.0Db gain	\$179
Db gain	\$255
Db gain	\$469

REPLACEMENT

POWER FOR HT's

honey! Hard to believe, but
series. Made with matched
e short circuit and over-

0maH	\$125
00maH	\$95

1H	\$69
maH	\$75

maH	\$75
00maH	\$85

2G, 32AT etc	\$85
G, 32AT etc	\$85
at, 2Sra, W2	\$59
at, 2Sra, W2	\$85

/26/75/77	\$85
/6/75/77	\$85
7/47/28/78	\$75

470/411/811/911	\$85
415/815/530	\$90
5/815/530	\$90

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amateur radio in which the
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lio transceivers.
uning to enhance its

RF AMPLIFIERS

RF CONCEPTS

RFC-2/70G for Dual Band Handies has preamp	\$339
RFC-3-22 for 220MHz 2W in 20W output	\$169
RFC-5-32 for 440MHz 2W in 20W output	\$229

MIRAGE

B-215G 2M FM and SSB 2W in 150W out	\$449
B-1016G 2M FM and SSB 10W in 160W out	\$449
B-108G 2M FM and SSB 10W in 80W out	\$279
B-3016G 2M FM and SSB 25W in 160W out	\$399
A-1015G 6M FM and SSB 10W in 100W out	\$499
D-1010N 430-440MHz FM & SSB 10W in 100W	\$519

KEYS, PADDLES & KEYERS

Bencher BY-1 Black Iambic Paddle	\$99
Bencher BY-2 Chrome Iambic Paddle	\$129
Nye-Viking 322-001 Black Rect Base Strait Key	\$39
Nye-Viking 330-001 Master Key,Base,Cable	\$75
MFJ-557 Code Practice Oscillator with Key	\$40
MFJ-422B Basic Keyer with BY-1 paddles	\$185
MFJ-486 Grand Master Memory Keyer	\$239
AEA MM-3 Morse Machine (does everything)	\$239

DAIWA ACCESSORIES

Every station should have an SWR meter as part of your standard equipment. AHR carries a large selection of SWR and power meters.

DP-830NDigital SWR with clock 1.8-1300MHz	\$399.95
CN-410M 3.5-150MHz 15/150W scales	\$109.95
CN-460M 140-450MHz, 15/150W scales	\$119.95
CN-101 1.8-50MHz 15/150/1.5Kw Cross needle	\$119.95
CN-103 140-525MHz 20/200W Cross Needle	\$129.95
CN-520 1.8-60MHz 200/2Kw scales	\$129.95

DK-210 Electronic Keyer with LED Speed meter	\$165.00
LA2035R 2M .5-5W in - 30Watts with preamp	\$169.95
MR750E Rotor (Equiv to Ham IV)	\$449.95
MR750PE Rotor as above, but with Presets	\$499.95

KAM UPGRADES \$50

Upgrade your KAM to Version 5.0. Imagine being able to do Packet on VHF at the same time as RTTY/ASCII/AMTOR/CW on HF. With Host Master II Plus and your IBM or C64 computer, you get more flexibility than any other all mode TNC offers! Also, now change your KAM parameters remotely, and access your Mailbox from AMTOR!

BOOKS

NO Ontario Sales Tax on all Books marked *

1992 North American Callbook, USA/Can. & Mexico	39.00
1992 International Callbook (all except N. America)	39.00
Both Callbooks (above)	65.00
Map Library:Atlas, 3 maps N. America, World, Circle	19.95
1992 Radio Amateur Handbook-Hard cover only	*29.00
New Antenna Book, Over 700 pages	*28.00
New Operating Manual	*25.00
Satellite Experimenter's Handbook (New 1990)	*28.00
Antenna Compendium	*18.00
Antenna Compendium 2	*20.00
W1FB Antenna Notebook	*14.00
W1FB Novice Antenna Book	*14.00
W1FB Help for New Hams	*17.00
HF Antennas for any location	*22.00
YAGI Antenna Design	*23.00
Gateway to Packet Radio	*18.00
1992/93 Repeater Directory	8.00
CRRL Logbook	4.00
CRRL Super Logbook-Double sided & more pages	6.00
Now You're Talking (Introduction to Ham Radio) ...	*25.00
Your Introduction to Morse Code 2 cassettes	19.00
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results of 1980. According to Kevin, VE3KDH, and Bob VE3BFM, the Ontario VHF Society group, operating from Dennis, VE3ASO's QTH in FN25, bagged 554 QSOs, 221 grid squares and 11 countries during the contest. Contacts included KP4, Haiti, and the Dominican Republic, plus everything else in between. It looks like VE3ONT may be in the top position on six metres in North America, but we will have to wait for the official results. Congratulations to Dennis and all the gang who worked so hard in typical amateurs spirit to put on a fabulous demonstration of Canadian VHF skill!

144 MHz: The Gaslight Net has been revitalized. VE3HFU announces that it is again operating in Southern Ontario on 144.24-MHz USB every night at 9 p.m.

Kevin, VE3KDH, plans to build a high-power amplifier around a 4CX1000K. He has the socket, and has completed most of the metal work for the RF compartment.

René, VE2UG (ex-VE2FTR) is active from FN08 with 500 watts and 14 elements. He has worked VE2XX, VE3KDH and VE3FGU, and K1WHS over a 500-mile path. For skeds, write to René Barbeau, VE2UG, CP 779, Evain, PQ, J0Z 1Y0.

According to VE2XX, look for two-metre beacon activity on 144.277. The call will be VE2TWO/BCN. Bernie VE2LC, is proposing to operate this beacon from FN58JO. Power will be 25 watts to an omnidirectional antenna.

VE1MQ worked many VE1 stations during the June contest, and made it as far as FN41.

902 MHz and 1296 MHz: Dick VE3FAC, is busy designing a cavity amplifier for 33 cm. The design is based on the N6CA 1296-MHz amp. Dick plans on making a kit of parts available in the future. For information, contact Richard Staron, VE3FAC, 10 Forbes Road, Scarborough, ON, M1P 1K9 Tel (416) 288-0569.

During the contest, VE3ONT worked 30 stations in 17 grid squares on 23 cm and six stations in six grid squares on 33 cm. Meanwhile, VE2XX, worked two stations on 23 cm and four on 33 cm from his home QTH in St-Lazare. It looks like we really need to push to get more stations active on 33 cm, especially since it offers superior propagation relative to our higher bands.

2304 MHz and 3456 MHz: Thanks to the efforts of VE3BFM and Toronto VHF Society ARC, there are now a number of VE3 stations including VE3WCB, VE3SMA, VE3DJ and VE3KDH QRV on 13 cm with "no-tune" transverters from Down East Microwave. These rigs are relatively easy to assemble and provide a good example of the state-of-the-art for

microwave narrowband gear. VE3WCB has also built a 2304-MHz signal source based on an RSGB design. It uses a 96-MHz crystal to generate about 15 milliwatts of energy at 13 cm.

During the June contest, VE3ONT worked nine stations in seven grid squares on 13 cm. On 3456 MHz, VE3ONT worked five stations in three grid squares.

10 GHz and Up: Looks like plans are afoot to get a record number of Canadians active on 10 GHz for the annual ARRL Cumulative 10-GHz Contest. If you have a tellurometer or a Gunnplexer, get it ready. Time is running out.

By the way, the VE3ONT group made 33 QSOs in three grid squares on 10 GHz, including a 120-mile contact with a station atop Whiteface Mountain. They also managed one QSO on 22 GHz.

AUGUST PERSEIDS METEOR SHOWER NEWS

Interested in meteor scatter? Don't forget to stay up late during August 9–14 to catch some QSOs via a mode of operating that was pioneered by radio amateurs. Operating frequencies include 50.125, 144.2, and 222.1 MHz. For best results, it would be prudent to set up schedules or skeds at certain times on frequencies away from normal calling frequencies to make contacts. Traditionally, we divide each minute up into 15-second blocks. The station to the west transmits during the first and third 15 seconds and the station to the east transmits during the second and fourth. For a valid exchange, use either signal reports, S2 (short bursts) and S3 (long bursts), or grid squares. A valid contact includes confirmation of reception of the other station's call, your call and a signal report. Confirmation is the sending of "Roger" or "Roger S2" if you get both calls and a signal report. Happy rock bouncing to all you meteor jockies out there, let us know how you make out.

ARRL SEPTEMBER VHF QSO PARTY

For those planning on entering the September contest, please note the following: For latest contest entry forms and blank log sheets, send a self-addressed business envelope with your request to ARRL, 225 Main Street, Newington, CT 06111. After the contest send one copy of your log *directly* to ARRL. In addition, to be considered for the Canadian Awards, please send an additional copy of your entry to Toronto VHF Society ARC, c/o Kevin Hobbs, VE3KDH, CIMTEK Automation, 2526 Speers Road, Oakville, ON L6L5M2. Remember, this is not a CRRL contest. *Do not send your results to CRRL.* Neither CRRL nor the Toronto VHF Society ARC is obligated to forward your log to ARRL. I do welcome copies of your logs for reporting in this column, but please, tell me that you have sent a

copy directly to ARRL. OK?

AMPLITUDE-COMPANDED (ACSSB) SSB ON THE MOVE

The *ARRL Letter* recently reported on the development of an Amateur ACSSB repeater in California. ACSSB is a technique that takes the good points of SSB, overcomes the frequency control problem, and yields noise-free mobile radio communications as good as FM while occupying up to 80-percent less bandwidth. That means up to five repeaters could function in the bandwidth now occupied by one FM repeater. In addition, the range for a given amount of power is at least doubled over that of FM. According to *The ARRL Letter*, the Southern California repeater will operate with a 144.896-MHz input and a 145.495-MHz output, and is expected to cover five counties from its 6000-foot elevation site near Los Angeles. Look out for the future, people. I wonder who will be the first to fire up an ACSSB machine in Canada

NEWS FROM THE TORONTO FM COMMUNICATIONS SOCIETY

Toronto FM (TFM) is very busy these days. Upgrades continue on the six- and ten-metre repeaters. The IPARN link, the first east of Alberta, is up and running with VE3POJ feverishly working on integrating control software into the system, and VE3BDJ and VE3HQW working on the various antenna problems that the system faces. Incidentally, if you use the TFM system, please join the group and support the myriad of activities that help keep the system going!

Well that's it for this time. I apologize for the length of the column after missing last month, but I have been somewhat preoccupied with my new position as CRRL President and with merger negotiations. Remember, this is "your column", please send those photos and activity reports for inclusion. Good DX to all. ■

NO MORE PUSH-TO-TALK?

According to *JARL News* (Japan Amateur Radio League), thanks to work at Tohoku Electric Power Corporation, it may soon be possible to communicate full-duplex using any voice mode on a single frequency. Newly-developed technology divides signals from each operator's voice into 0.2-second segments and compresses them into 0.1-second segments before transmitting them. The 0.1-second segments created "in-between" provide the time needed for the receiving signals from the other end. The received signals are then expanded to create normal-sounding voice. Tohoku Electric noted that the new technology has many applications, including Amateur Radio. ■



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Tracking Down Interference

York Region ARC traces illegal interference on an ATV channel...

By Mike Hoare, VE3EYS
Box 514
Sharon, ON L0G 1Vo

The following article is reprinted from the June 1992 issue of Splatter, the newsletter of the York Region Amateur Radio Club. We are pleased to bring you this story of a successful pursuit of illegal use of our amateur bands.—Editor

The interference was located on 439.25 MHz, the input frequency of the VE3YRC amateur television repeater. The signal had been causing the repeater to cycle on and off intermittently for about six weeks. Before the signal was identified, we thought it was rare DX hitting the repeater. At one point, Andy, VE3ORE, said he saw a gate opening and closing, and cars going through—but this was a one-time event. Yes, it's amazing what you can see on amateur television (ATV) at times.

The repeater output on 1253.25 MHz never really showed any obvious picture, but the interference was a video signal because the repeater was designed to key up only if video was detected. I got to the point where I knew DX was possible, but this had to be something else. It was time to find out.

Neil, VE3SST, went by the repeater and pulled the plug, to save the repeater from any more abuse. I picked a quiet Tuesday night and installed my equipment in the car. It consisted of a portable television set, a 439.25-MHz television receive converter, and a three-element yagi antenna. I went to the club house in Aurora where the repeater was located and started the search from there.

At the base of the tower the signal was barely present. All you could see was a small white bar in the middle of the screen. For you Startrek fans, it looked like a small space ship on the Enterprise's monitor. I scanned the area with the yagi. The source of the signal was south of the repeater site, so it was into the car and off I went.

My first mistake was not having a new map of Aurora on hand. Aurora has some interesting side streets! I ended up at Bathurst and Wellington. Now my antenna indicated that the source was more over to the east side of town. So off I went across Yonge Street and onto some back roads. I knew I was close because the television picture was now sharp and clean. At this point I remembered that I

had left my variable attenuator at home. Pity!

As if my wife and number two son knew about all this, I was suddenly called home to watch the family while they went off to the emergency department at the local hospital. This unfortunate interruption, which eventually worked out OK, gave me time to follow up on some possible sources by contacting Aurora Cable. They were very helpful, and cleaned up a few leaky connections on cables that carried their 437-MHz pilot signal.

Steve, VE3PIP, Jamie, my 18-month old daughter, and I set out again on the morning of Sunday, April 12. I had upgraded my monitoring equipment to a spectrum analyzer, a quarter-wave whip and the yagi. First, we went to the club house and measured the interference to see if it was still there. It was. The signal strength was seven microvolts. We drove over to where we had left off the search before, and we started in.

Cable noise had disappeared, but a carrier was still present on our ATV repeater frequency. We made a few more readings and headed southeast. We ended up in the high-priced end of town south of the Vandorf Sideroad. The signal level was now very high using just the whip, but we could not see any obvious source.

Using the yagi we took another reading. We decided to go over to the next road. Back on the whip and around the corner, the signal skyrocketed to the 40-dBm level. We were obviously very close, and then, there it was—Andy's mystery gate!

It was an entry to a condominium community, and there, beside the gate, was 30 feet of tower with a poor excuse for a yagi pointing southeast. The next question was where was the camera? A spin around, and there it was, on a pole some 30 feet back. I guess we were on ATV without even knowing it!

Right beside the gate was a fancy club house. I hoped someone inside would know about the television transmitter. After a short conversation with a very helpful management, we were sent down Bayview to the receiving end. A guard was patiently watching another entrance gate from a small booth. The booth was located beside a short tower with another antenna. Bingo!

We advised the guard of the situation. It made his day! He provided us with all the information we needed to report to DOC. He turned on the monitor. From what we saw, the company that had installed the system knew nothing about television equipment or how to set it up. I tried to take a peek at the equipment, but it was in a homebrew-type box. Curses—foiled again!

Most amateur television equipment from the US is tightly controlled and sold only to licensed amateurs. I hope this is true here in Canada. I also hope that the installer was not a "closet amateur" using a callsign for business gain. It is interesting what some people will do to sell to others...

Pleased with our discovery, we celebrated over drinks and donuts. A fun and worthwhile morning, Jamie seemed to be right into it. I could see it—her, the youngest ham. But I was getting carried away!

Next day, Steve, VE3PIP, followed up with DOC. The interference vanished the day after and the repeater was back in action and looking good.

I would advise that action like this is necessary to help keep unwanted and unlicensed users out of our bands. This little exercise showed the value of direction finding with a television twist. It is up to all of us to keep an eye or ear open for these situations. How many other setups like this are out there—and not just on the 430–450-MHz band?

Hope to see you soon on an ATV repeater. ■

Ham-Ads



Advertisements must pertain to Amateur Radio. For individuals or firms offering products or services for sale, the rate is \$0.50 a word + GST. This is reduced to \$0.25 per word + GST for those seeking to dispose of or acquire personal station equipment. Telephone numbers count as one word. No charge for postal codes. Unless specified, a *QST Canada* Ham-Ad will appear in the next available issue. Send Ham-Ads to CRRL, Box 56, Arva, ON N0M 1C0.

WANTED: Copy of instruction manual for Heathkit impedance bridge IB-2. Sigi Bernhoff, VE3JDA, 15 Sandwell Crescent, Kanata, ON K2K 1V2, Tel (613) 592-0172.

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The CRRL Field Organization Forum

REPORTS FOR MAY 1992

Alberta: SM: Don Wilcox, VE6CG; STM: VE6AKY; SEC/TC: VE6AFO; OO: VE6TY. Reports for April and May were combined in last month's page.

British Columbia: SM/SEC: Ernie Savage, VE7FB. British Columbia Public Service Net (BCPS, 3729 kHz, 0130 UTC daily): Net Manager Jim VE7JN, reports May check-ins: high—159, low—86, total—4109. British Columbia Emergency Net (BCEN, 3652 kHz, 1900 UTC daily): Net Manager, Ray, VE7BCL reports 1171 May check-ins with a QTC of 486. On both nets, attendance was low, plagued by poor band conditions and the National Hockey League playoffs for most of the month. On May 24 a barbecue was hosted by Ralph, VE7DV, and Karen, VE7KDR. They were joined by a large contingent of amateurs, their wives and children. The Section Manager for British Columbia, Ernie Savage, VE7FB presented Tom, VE7BNI, with the Brass Pounders Medallion. BCEN Net Manager Ray, VE7CBL, presented Tom, VE7BNI, with a CRRL Public Service Award framed certificate. Both were well earned by BCEN'S most active member. Pete, VE7JT, is out of hospital and at home. He is improving slowly.

Manitoba: SM: Bill Crooks, VE4JR; ASM: VE4IX; STM: VE4STU; SEC: VE4PN, NMs VE4AGH, VE4FP, VE4LB and VE4TE. Paul, VE4AEY President of Interlake ARC, reports a very successful year, helping 18 students obtain their licences. Membership is 34, with 32 licensed amateurs including 8 husband-and-wife teams. They have installed one repeater at Arborg. Another is planned for the Teulon area and a third is in the books, site not yet determined. The club is active in ARES: Paul is AEC. Bruce, VE4BWA; Red, VE4RSP; Glen, VE4GY, and Ed, VE4SV, are ECs for their areas. The group had a successful SET in December and another is planned for early June. Keep up the good work! Dick, VE4HK, says that Citizens for Crime Awareness had a run in the St Vital Park area. Radio communications was provided by VE4s JBN, MGL, MJM, WDB, and WMR, with Dick acting as NCS. The Winnipeg ARC had an election of officers for the coming year, with Judy, VE4JBN; Alex, VE4AIM, and Bill, VE4KX, staying on for a second term. The following were elected to the executive: Jim, VE4AJR; Dave, VE4EF; Ross, VE4LDS; Pat, VE4PLG; Scott, VE4WSM, and Kay, VE4YF. The Manitoba Repeater Society recently elected these new officers for 1992-93: Derek, VE4HAY—President; Roy, VE4EN—Vice President; Dick VE4HK—Secretary; Albert, VE4AX—Treasurer; Adam, VE4SN—Membership; George, VE4AGX, Yori, VE4ACX, and Tim, VE4TEG—Technical Committee; Bill, VE4KX—Winnipeg ARC Liaison; and Jim, VE4CY—Past President. May you all have success in the coming year. 73.

Maritimes-Newfoundland: Acting SM: Carl Anderson, VE1UU; STM: Mel Lever, VE1VX; BM: Brent Taylor, VE1JH. No report available. The Maritimes-Newfoundland Section does need a Section Manager. Please con-

Reports Invited: CRRL Section Managers (SMs) and their Section-level assistants coordinate traffic handling, emergency communications and bulletin service across Canada. Your SM (name and address appears on page 2 of this *QST Canada*) welcomes reports of individual and club activities for publication in this column. Activities do not have to be related to the CRRL Field Organization or to CRRL.

tact the Acting Section Manager or CRRL for details.

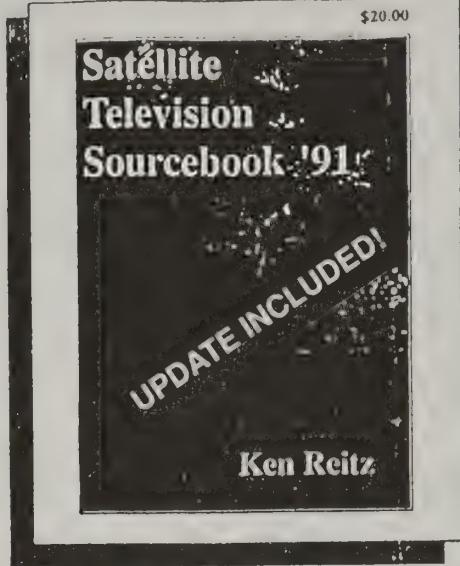
Ontario: SM: Larry Thivierge, VE3GT @ VE3WQ; A/SM and BM: VE3GSA @ VE3JF; A/SEC: VE3WQ; STM: VE3CYR @ VE3KRG; TC: VE3EGO. Ottawa YMCA officials, employees and members feted VE3SSB and presented him with several plaques in recognition of his many years of volunteer work with the "Y". Bill ensures that their computers are up and running all the time. Well done, Bill! After a major hard-disk failure at the VE3JF BBS, Barry switched over to his KA9Q NOS mailbox system. It has most of the features of the old BBS plus several new wrinkles. Based on the WG7J version of the KA9Q NOS software, it provides a mailbox which is fully compatible with the standard PBBSSs, plus facilities for AX.25, NET/ROM and TCP/IP network support. One major departure is that all mail is sorted into different areas and these areas are accessed by the "A" command". It works really great and I think it is much faster. EC's reporting this month via packet were VE3AFTP, VE3AGY, VE3LPM and VE3LVO as well as VE3FS by mail. My list of current EC's is inaccurate and I would like to hear from all EC appointees so I can update the list. VE3TRW has been busy taking CANWARN throughout the province. New areas include Hamilton, Burlington and Brantford. Windsor was the birthplace of CANWARN. VE3GAS is now VE3WG. VE3AWE has a new TS-850 and VE3WM has a new FT-990 up and running. VHFers VE3DSS and VE3VD are just finding out that life begins at 40. Best wishes, guys! VE3TNL is the recipient of the Sault Ste. Marie club's Dave Allison Award in recognition of his many contributions to the club. VE3LVO is soloing a 64 Yale WW2 trainer he helped put together at the Canadian Warplane Heritage Museum. Is London ARC the oldest in Canada at 72 years? Send replies to Carl, VE3ZCO. New club is the Parry Sound ARC with VE3TSZ as president. It has been reported that VE3BMW, VE3FQN and VE3PJI have become Silent Keys. During a recent trip to Northern Ontario, I overheard several amateurs on local two-metre repeaters arranging and booking motel rooms including mentioning the motels by name. This is a definite no-no. Ontario's amateur population now stands at 11,000. New amateurs VE3MDI and VE3SBT are the youngest members of the Manitoulin ARC at ages 12 and 14 respectively. VE3SST and VE3POJ did a very fine job giving a presentation to the North Shore ARC and answering questions covering all aspects of fast-scan ATV.

Quebec: SM: Joe Unsworth, VE2ALE; STM: Jean, VE2ED; OBS: Garnett, VE2GOP. De Père Charles-Edouard Robert, VE2EC: Je

suis encore en très bonne santé cependant avec les petits malaises du vieil âge (je suis arrivé sur le cosmos le 16 novembre 1901), je suis encore actif, surtout sur 2 mètres, très fidèle, quotidiennement sur le réseau VE2MO, 146.670 MHz. J'ai dû descendre ma tour, par conséquent, plus d'antenne de 80 mètres, adieu au réseau VE2AQC. Aussi quelques notes, Yvon Deziel, VE2YTD, vient d'être élu président de l'Association Radio-Amateur de la Mauricie. Remi Simard, VE2AVV, Guy Reynolds, VE2ANK, Michel Bourassa, VE2PH, se sont établis un réseau de télévision-amateur dans la bande UHF en "fast-scan". Germaine Doucet, VE2AGP, atteint ses 300 pays, confirmés par DXCC ARRL. From Hank Rugg, VE2HN, Secretary of the Westminster Amateur Radio School: Congratulations to all 15 of our students who successfully wrote the DOC exams and now have their amateur licences. So that you can recognize your fellow students on the bands, a list follows: Helen Archibald—VE2YAK, Wayne Edwards—VE2EJW, Joe Baco—VE2BBO, Eldor Gemet—VE2HUG, Gérard Benchétir—VE2NSG, François Guay—VE2IPN, Leon Bergeron—VE2SMC, Robin Rye—VE2ORB, Al Solway—VE2TAS, Brenda Crawford—VE2HND, Erik Tirschler—VE2TIC, Walter David—VE2WLH, Wassin Turk—VE2WGT, and Willy Derix—VE2WDI. If you are interested in having your call and address appear in the *Amateur Radio Callbook*, please note that this may take a couple of years if left to the normal procedure of DOC sending a list to the *Callbook*. We recommend that you notify the *Callbook* publishers yourself. If you do it soon, your listing should appear in the next (1993) issue, published late in 1992. Send your information to: *Radio Amateur Callbook*, Box 2013, Lakewood NJ 08701. Postage to the US is \$0.48.

Saskatchewan: SM: Joan Lloyd, VE5JML. Congratulations to new amateurs Therese, VE5TLD, and Gertrude, VE5GES. It's nice to hear more YLs on the air. Members of Saskatoon ARC (SARC) were invited to set up a station and try to make contact with members of the Canada 125 Trek that is taking place in the Northwest Territories. Peter reports that SARC was successful in making several contacts. Saskatchewan Amateur Radio League (SARL) executive and directors met in Regina on May 2 to discuss the mini-hamfest to be held in Saskatoon on July 25. A new VE5 call directory will be available at this time. On Monday, May 18, 35 amateurs from Regina and Moose Jaw provided communications, traffic and crowd control for the Regina Flying Club's Open House. Over 25,000 people took in the static and aerial displays, capped off by the Canadian Forces

Section News—continued on page 20



ISBN: 0-9627654-0-6

Finally, everything you need to know about satellite television! **Satellite Television Sourcebook** lists names, addresses and phone numbers of suppliers, manufacturers, services, books and publications on the subject. It explains how satellite television works, and describes installation procedures and maintenance of systems. You'll also find practical tips on how to use a home satellite system for best reception of video, audio and data.

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DELEGATED EXAMINERS

DOC has appointed over 300 examiners to conduct Amateur Radio examinations across the country. Since this program was put into place, some 4000 candidates have been examined. The record of performance by the volunteer examiners has been exceptionally good. Only three have been subject of complaints.

Congratulations and thanks of the Amateur Radio community and DOC must go to the examiners—devoted amateurs who are serving the hobby so well. —Ray Staines, VE3ZJ

IARU REGION 2 TO MEET IN CURAÇAO

The 11th General Assembly of IARU Region 2 takes place in Curaçao, Netherlands Antilles, on August 31–September 4, 1992. The Canadian delegation will be headed by CRRL International Affairs Vice-President George Spencer, VE3AGS. He will be joined by CRRL President Dana Shtun, VE3DSS, and others.

WRITING FOR QST CANADA

We always welcome articles for **QST Canada**. It's most helpful when we receive the text on diskette. MS-DOS users: please save as an ASCII file on a 360-kilobyte format 5.25-inch diskette. Macintosh users: save in any popular Macintosh format. —Editor ■



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Crisis in Samoa—Part 1

Samoa is a peaceful archipelago some 2600 kilometres northeast of New Zealand. Western Samoa, which has been independent since 1962, comprises nine islands which lie west of longitude 171 degrees. The largest are Savai'i and Upolu. Total land area is 2840 square kilometres with a population of about 170,000. To the east of longitude 171 degrees is American Samoa, a US dependency. It has six islands with a total area of 197 square kilometres and a population of around 40,000.

Reg Hardman, VK4XH, is a member of the Mercury Amateur Radio Association of Australia (MARA). Its mission is to provide communications, particularly health and welfare, in the event of a disaster in that part of the world. Reg has provided a graphic description of the major cyclone which savaged Samoa last December, and of the part played by the Amateur Radio fraternity in providing essential communications. The following is taken from Reg's report:

"On Saturday, December 7, 1991, Cyclone Val struck Samoa, and for five days pounded the islands with rain and winds from 190 to 240 kilometres per hour. During this period 14 persons died, many were injured, and thousands were homeless, and damage to hospitals, churches, fire and police stations amounted to millions of dollars. During the storm there was no electricity and no telephone communication outside the country. The people were confined to their homes which were disintegrating around them. During this time most of the people had no hot food, lights, communications or sewage systems, and could not go outside because of sheets of steel roofing and other flying debris which could cause death or serious injury. For five days the only communication outside the country was via Amateur Radio, which handled traffic for church groups, governments, disaster organizations and individuals with specific problems. For eight more days Amateur Radio operators helped provide communication links in the emergency rebuilding program until regular telephone and commercial channels were re-established."

How did it all start? On December 7 senior administrators of the Church of Jesus Christ of Latter Day Saints contacted members of MARA to request help in contacting 5W1JL, the church club station in Apia, the Western Samoan capital on Upolu island. Those contacted included Reg, VK4XH, Neville, ZL1BJU, Bryant, VK2BWS and Max, VK2CMT. Cyclone

Val had struck Samoa, the telephones were dead, power was off, and from the strength of the winds it appeared that the situation was going to be serious. Here is Reg's day-by-day chronicle:

"Saturday: Coming up on 20 metres, we established contact with operators Utai

and Ed at 5W1JL. They were operating a Kenwood TS-430S into a three-element beam. Signals between Samoa, Australia and New Zealand were good.

"The fury of the storm was described to the eight MARA net members from Australia and New Zealand now gathered

Field Organization Reports May 1992

CRRL Section Emergency Coordinator Reports

Reports were received from the following SECs (DECs and ECs reporting to SECs are listed in brackets). Total ARES membership is currently 1094.

Reporting	ARES Members
VE6AFO	337

CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Dlvrd	Total
VE1BTV	0	15	13	0	28
VE1YS	0	4	4	0	8
VE1ALU	1	3	4	0	8
VE1VAR	0	4	4	0	8
VE2ALE	0	66	271	0	337
VE2GOP	0	42	77	0	119
VE2ED	1	9	7	3	20
VE3ORN	5	52	47	13	117
VE3GSQ	4	57	42	1	104
VE3CYR	0	58	14	1	73
VE3AJN	1	41	21	2	65
VE3DVE	0	21	40	4	65
VE3WV	0	42	7	2	51
VE3GT	0	18	32	0	50
VE3BDM	0	31	10	0	41
VE3HZQ	3	16	15	4	38
VE3AAU	0	11	21	1	33
VE3KXB	0	9	16	0	25
VE3LPM	0	8	13	2	23
VE3NVJ	1	7	12	2	22
VE3GNW	0	9	11	0	20
VE3SB	0	9	11	0	20
VE3DBG	0	4	7	2	13
VE3MNI	1	4	7	1	13
VE3FS	2	3	5	0	10
VE3BAJ	0	0	6	1	7
VE3GKB	0	2	3	1	6
VE4JR	0	68	9	7	84
VE5KZ	3	5	5	2	15
VE5JML	0	4	0	0	4
VE6CE	15	16	21	2	54
VE6XG	8	24	11	8	51
VE6CHK	5	10	7	6	28
VE6CPP	5	10	0	10	25
VE6AKY	1	4	4	5	14
VE7BNI	17	209	224	14	464
VE7BCL	3	91	58	40	192
VE7ANG	0	75	79	0	154
VE7XA	2	32	29	20	83
VECCJ	5	38	37	1	81
VE7OM	2	30	30	4	66
VE7FLY	2	12	24	2	40
VE7FRZ	9	17	11	0	37
VE7BZI	8	11	8	1	28
VE7XA	1	8	15	3	27
VE7FME	0	16	7	0	23
VE7GKA	0	13	5	0	18
VE7FB	0	9	5	4	18
VE7EGM	1	12	2	2	17
VE7VO	0	12	5	0	17
VE7DFX	0	11	5	0	16
VE7DWZ	0	10	6	0	16
VE7SR	0	7	5	1	13
VE7CZW	0	11	1	0	12
VE7BPO	0	5	2	0	7
VE7WI	0	4	3	0	7
VE7BJ	1	5	1	0	7

National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN (VE1YS)	28	n/a	52
QSN (VE2ED)	11	36	2
KTN (VE3AJN)	13	121	10
NPN (VE3NDI)	31	428	7
OLN (VE3POJ)	27	754	19
OPN (VE3AJN)	31	617	126
OQN-D (VE3ORN)	29	92	13
OQN-E (VE3CYR)	30	122	63
OQN-L (VE3GSQ)	20	51	16
MEPN (VE4LB)	30	1003	18
APSN (VE6AKY)	31	744	3
ATN (VE6CPP)	31	160	0
BCEN (VE7BCL)	31	1171	486

Brass Pounders' League

This listing is available to amateurs who report to their SM a traffic total of 500 or a sum of origination and delivery points of 100 or more for any calendar month. All messages must be handled on amateur frequencies, using standard ARRL-CRRL form, within 48 hours of receipt.

BPL: none this month

Public Service Honour Roll

(1991 Revision) This listing is available to amateurs whose public service performance during the month indicated qualifies for 70 or more points in the following eight categories (as reported to their SM). Maximum points for each category: (1) Checking into a public service net using any mode, 1 point each, maximum 60; (2) Acting as a Net Control Station (NCS) for a public service net using any mode, 3 points each time, maximum 24; (3) Performing assigned liaison between public service nets, 3 points each time, maximum 24; (4) delivering a formal message to a third party, 1 point each, no maximum; (5) Originating a formal message from a third party, 1 point each, no maximum; (6) Serving as a CRRL SM or field appointee, 10 points for each office or appointment, maximum 30; (7) Participating in a communications network for a public service event, 10 points each event, no maximum; and (8) Providing and maintaining an automated digital system that handles messages in standard ARRL-CRRL format, 30 points. Those qualifying for Public Service Honour Roll 12 consecutive months, or 18 months out of 24, will earn a special certificate.

PSHR: VE3ORN (156), VE3GSQ (133), VE3AJN (131), VE3BDM (128), VE3CYR (123), VE3GT (100), VE3HZQ (100), VE3FS (89), VE3AAU (82), VE3GNW (72), VE3LPM (71)

Service and Specialized Nets

Independent Net Managers: Your monthly reports are welcomed. Send to CRRL, Box 7009, Station E, London, ON N5Y 4J9.

Net (Mgr)	Sess	QNI	QTC
CRRL ONTARS	31	8360	0
GBN (VE3WV)	26	33	17
GBSSN (VE3WV)	26	79	24
Aurora 1 (VE4AHG)	25	947	3
Aurora 2 (VE4FP)	31	1420	4
Prairie WX (VE5EX)	31	537	0
Sask ARES (VE5FY)	5	258	0
Sask 2-Metre (VE5HG)	30	795	0
MJARC 2-Metre (VE5JJP)	30	430	0
ARG 2-Metre (VE5EE)	31	1079	1
Alberta ARES (VE6AKY)	8	196	3

on the frequency. A schedule of stations to monitor the frequency was established. From the weather bureau in Fiji it was determined that the cyclone was located forty miles north east of Savai'i, Samoa's largest island. It was moving south east at ten mph, with winds of 150–190 kilometres per hour. Ed told us that local power had been switched off and they were operating from the emergency generator.

"Sunday: Utai and Ed at 5W1JL came on frequency at 2000 UTC and reported winds of 140–190 kilometres per hour with gusts to 240 kilometres per hour. American Samoa was predicted to receive Val's full force at 0600 UTC that night. Surprisingly little damage was done to churches and public buildings. There was a lot of debris on roads, particularly on the ocean front. People were staying indoors to avoid flying missiles. The big island of Savai'i had now been without power for 18 hours, and Apia, the capital and location of 5W1JL, had been without power for ten hours. Utai and Ed were on emergency power and did not know when full power would be restored. Little did they know this would not happen for many days. Telephones were breaking down and no aircraft were flying. Ed tried to call Australia by telephone but could not. We relayed the report of conditions via phone patch to Sydney and arranged at Ed's request to establish a routine of schedules at 0500 UTC each day until the emergency passed.

At 0500 UTC, 5W1JL reported a change in wind direction that indicated that the worst of the storm would miss American Samoa. A few reports of missing sheet steel roofing came through but no major damage was reported. There was, however, considerable damage to the banana and breadfruit crops, an important part of the Samoan diet. Based on previous experience, people were gathering the fruit as it fell; it could be a long time until the next crop. There were no reports of injuries. The telephone system was still inoperative, and nothing had been heard from Savai'i, an increasing concern. The power company had managed to restore power to some parts of Apia although Ed was still on emergency power. He had refueled his generator twice that day, and acquired enough fuel for another 15 hours of operation.

"Monday: At 2000 UTC, the MARA group met with Ed and Utai with 5-8 signals. Conditions were deteriorating rapidly, and this looked like a very big "blow" indeed. It appeared that the cyclone had stalled and turned back on the islands. It continued to pound with winds of 190–240 kilometres per hour. There was now a great deal of flooding throughout the town. Many roofs were gone, there was extensive seashore damage and many homes were flooded as the rain drove horizontally through windows and louvres.

Some people were moving into churches to set up temporary homes since their roofs had blown away. The foliage on all the trees had been stripped.

There was now a greater feeling of urgency as the destruction continued, and the realization dawned that one of the big challenges would be the supply of aid to this remote country when the devastation ceased. Later that afternoon we resumed contact with Ed and Utai with good signals both ways. The wind and rain continued at full force, with damage increasing as Val's centre remained stationary. Flooding and other rain damage continued with more and more homes being destroyed. The fire station in Apia was demolished with many other buildings on Main Street. Many schools had lost their roofs, and in some, the rafters and joists had disappeared as well. It was hard to find a home or building that had not suffered some damage. Everyone stayed indoors. Ed heard from Savai'i that a couple from Australia had seen the back end of their house destroyed. They then moved to the front section just in time to see their roof fly off. They then moved into the local church with the rest of the village. So many people had moved into the churches that in some there was barely room to lie down. Since someone said the strongest area in a building was the bathroom, in one church, all the men took shelter in the men's room and the women in the women's room.

Ed and Utai were now rationing generator time, as they realized it would be a long time before power was restored. It was reported that one electrical worker had been electrocuted and two others were in hospital. (Continued next month.)

WHEN YOUR ALTERNATOR FAILS

This item appeared in a recent Dryden ARC newsletter. Thanks to Bill, VE3EFX of Kincardine, who sent it along. Bill's daughter, Lynn, VE3JBL, tells the story:

"On January 10, 1992, what started out as a normal work day for my husband Merv, VE3MFX, turned into a learning experience for him as well as other amateurs in the Dryden area.

Section News—continued from page 17

Snowbirds performance. The open house took place at an active, functioning Transport Canada airport, making the role of the Amateur Radio operators a very important one. Many thanks to the following dedicated amateurs who gave their time: VE5s AAA, ADO, AGM, BE, BV, CON, CPU, CS, DCP, EE, FAR, FY, GLF, GW, HP, JAB, JML, KZ, MML, MQ, OI, RAL, RC, RJR, RN, RO, SF, SHK, SWR, TH, UK, UU, VAL, VR and WJ. Your efforts were very much appreciated by the flying club and by Transport Canada. Hope to see everyone at the Saskatoon Mini-Hamfest on July 24–25. 73 ■

"When Merv didn't return from work at his regular time, I began to worry. Merv works in the bush some 95 kilometres southeast of Dryden, on a seldom used road in the Snake Bay area. He commutes daily from home, with three others in the same truck. When Merv was late, I tried to raise him on his two-metre handheld through the local repeater, VE3DRY.

"At 9:25 p.m., I was in contact with my Dad, Bill, VE3EFX, on 3750 kHz. I voiced my concern about Merv. Bob, VE3IDJ of Ignace, was also on frequency. He said he would try to raise Merv on two-metre simplex, as he was a bit closer to him than the Dryden repeater. Unable to get any response from Merv, Bob drove off down the Bending Lake (Atikokan) Road in search of him.

"During the summer Merv had been taking this road, but during the winter he changed his route. Leo, VE3ASS, came up on the Dryden repeater to tell Bob he would not be able to drive on Snake Bay Road, as it was not ploughed out. So Bob turned back, and Leo and Bob, VE3RNM, guided Bob, VE3IDJ, to the proper turnoff for Snake Bay.

"Carolyn, VE3JJM, who is VE3IDJ's wife, and Gary, VE3MOR, helped maintain communications. Bob, VE3IDJ, eventually reached Snake Bay Road and headed into the bush. Keep in mind that this was late at night, with no visible landmarks, and a temperature of -15° Celsius. As he approached, Bob was able to contact Merv on two-metre simplex. Merv's battery was almost dead, and each transmission faded out after just a few words. He was advised to respond with fast one-word answers. It was now 10:30 p.m.

"At 11:30 p.m., Bob reached the site where Merv and his fellow workers were stranded, 50 kilometres south of the main highway. They had a fire burning, trying to keep warm, but they were tired and hungry. Bob learned that Merv had been monitoring everything, but because of his location and low battery, Merv could not reply to the repeater.

"All four men got into Bob's small car and were driven back to Dryden. Fresh baked muffins and hot coffee were ready at Merv's home. Then Bob struck out for Ignace, arriving home at 3 a.m., tired after a job well done." —Bob Boyd, VE3SV

This column appears in both The Canadian Amateur and in QST Canada. We hope it serves as an ongoing source of news and information about ARES for members of both CRRL and CARF.

A reminder that ARES is part of the CRRL Field Organization, although you do not have to be a CRRL member to take part. For more information about how to set up an ARES group, contact your CRRL Section Manager (address appears on page 3 of this QST Canada) or your CRRL Section Emergency Coordinator. ■

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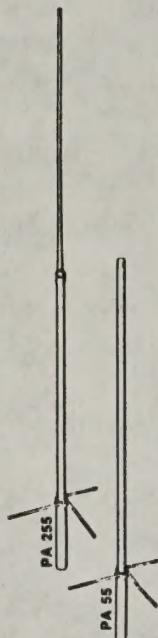
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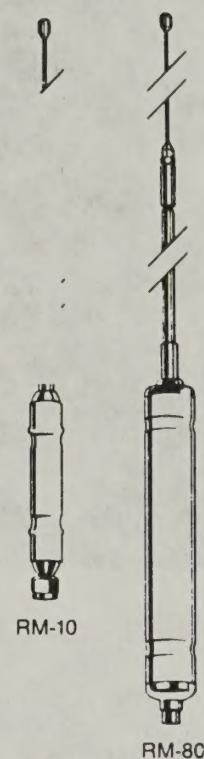
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Kenwood TS-850SAT HF Mobile w/tuner	\$2119	\$2162
Yaesu FT-890AT New HF Mobile w/tuner	\$1585	\$1616
Yaesu FT-747GX HF Mobile	\$881	\$899
ICOM IC-229H VHF 50W Mobile	\$466	\$475
ICOM IC-2410H Dual Band Mobile	\$979	\$999
ICOM P2AT New VHF Handheld	\$419	\$429
Kenwood TM-732A Dual Band Mobile	\$789	\$805
Kenwood TM-741A Dual Band Mobile	\$819	\$836
Kenwood TH-28A New VHF Handheld	\$436	\$445
Yaesu FT-2400H 50W VHF Mobile	\$475	\$485
Yaesu FT-5200 Dual Band Mobile	\$812	\$829
Yaesu FT-415 VHF Handheld	\$416	\$425
Alinco DR-119T VHF Mobile	\$466	\$475
Alinco DR-590 Dual Band Mobile	\$769	\$789
Alinco DR-599 Dual Band Deluxe Mobile	\$859	\$879
Alinco DJ-F1T VHF Handheld	\$371	\$379
Alinco DJ-580T Dual-Band Handheld	\$509	\$519

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RM-40 Resonator for 40m	\$41.50
RM-75 Resonator for 75m	\$44.00
RM-80 Resonator for 80m	\$44.00
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MO-3 54" Straight Mast	\$33.35
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SF-2 'Buck Buster' 2m mobile	\$23.75
BBLT-144A 2m TL Mnt. 5/8	\$74.00
CGT-144 2m Collinear	\$82.50



Outbacker™

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Yesterday's 6-Band Mobile



Today's 6-Band Mobile

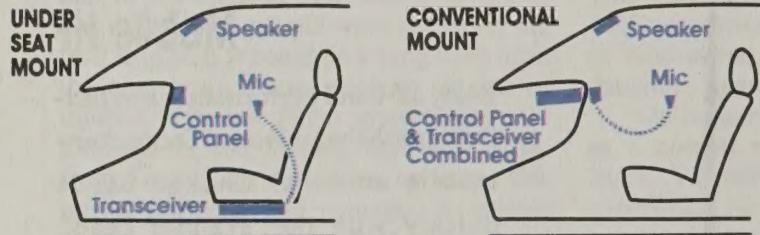


Six Radios In One!

ICOM's 901A is the world's only 6-Band HF/VHF/UHF mobile radio—operated by a single remote control panel.

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The basic 901A is a dual-band (2 meter/440 MHz) with control panel, mic and speaker. In some areas of the country the popular bands are filling up fast. When you're ready to make the jump to 220 MHz, 1.2 GHz, 10-meter, 6-meter, or 2-meter SSB—your 901A is ready, with a choice of add-on modules. There's even a wideband receiver!*



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The bright, easy-to-read liquid crystal control panel mounts anywhere—dash, door or visor—no tools, no holes. The panel can be easily detached and hidden to deter theft. The transceiver and additional band units stay out of sight, in the trunk or under a seat.



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Exclusive Fiber Optic Technology!

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